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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,712	12/22/2004	Marco Biasiotto	Q85107	4903

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EXAMINER	
CORRIGAN, JOSEPH JAMES	
ART UNIT	**PAPER NUMBER**
3744	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/518,712	BIASIOTTO ET AL.	
	Examiner	Art Unit	
	joseph corrigan	3709	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-3,8-11 and 13* is/are rejected.

7)☐ Claim(s) *4-7 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 December 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/22/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to for the following reasons:

- Figures 3 and 4 fail to identify **flow perturbating rocker arm member (16)** and **axis (17)** of same.
- Regarding Figures 3 and 4, identification arrow identifying **flow perturbating rocker arm member** (16) should point directly to element and not to wall (3a) in order to avoid confusion.
- Additional figure required to show embodiment described in claim 9 having a **plurality of main conduits and associated outlet conduits**.
- Drawings fail to identify the "**two portions**" of **mixing controlling shutter** described in claim 13, lines 6 and 7.

2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show structure detailing claim 9 limitations such as **".... a plurality of main conduits set mutually side by side and each communicating with a plurality of outlet conduits, each main conduit being provided with..." etc**. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP §608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet or "New Sheet pursuant to 37CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 1, lines 11-18 state

> "…..*a radiating mass* positioned upstream of the main conduit in such a way as to be traversed by the flow of air which arrives into the main conduit from an inlet conduit of the distributor device, to heat said flow of air, means which determine a variation of the temperature of the flow of air conveyed in said main conduit, said means being controlled by said Coanda effect distributor means, in such a way that **the temperature of the air flowing out of the distributor device is a function of the operative position of said Coanda effect distributor means**."

Applicant should clarify relationship between C*oanda effect distributor means* and means which determine variation of the temperature. It is examiners conjecture that Coanda effect has no influence in temperature of air flow, however, claiming deflection quality is totally acceptable. The claim language "…..**the temperature of the air flowing out of the distributor device is a function of the operative position of said**

Coanda effect distributor means....." is in question. Specification dictates that operative ends create said "Coanda effect" and aforementioned shutters temperature gradients. Applicant should consider renaming "Coanda effect distribution means" to "distribution means" to more accurately represent invention concepts. It appears to examiner that only due to common integral structure of operative ends and shutter (22) that "Coanda effect" is related to temperature. This indirect relationship should be accurately represented in claim language and specification.

5. Claim 2 is objected to because of the following informalities:

- Lines 4-9 state ", ... and means (22) for throttling obstructing the various distributor flow of the said by-pass said by-pass operative positions of the Coanda effect means which determine the deviation of the main conduit (3) into one of the aforesaid conduit (15) for variably conduit (15) depending upon outlet conduits (4, 5, 6), in such a way that the temperature of the flow of air exiting the distributor device (1) has different values depending on which outlet conduit (4, 5, 6) has been selected through said Coanda effect distributor means." Should be rewritten in fashion to clearly convey structure of applicant's invention. Examination will proceed as best interpreted by examiner. In examiners opinion claim language describing

structure and airflow can be more clearly stated. Appropriate correction is required.

6. Claim 9, line 5 states "....with a respective by-pass conduit (3') and with respective throttling means." The aforementioned "respective throttling means" lacks antecedent basis if throttling means are those disclosed in claim 3. Please confirm antecedence and/or make appropriate correction.

7. Both claims 9 and 10 refer to previously mentioned "throttling means" and depend on claim 1, however, antecedence is lacking since claim 1 to define "throttling means". Correction is required.

8. Claims 8, 11, 12 and 13 all disclose mixing control shutter. If invention possesses only one mixing control shutter claim dependencies of aforementioned claims need to be modified due to lack of antecedence basis. It appears that claim 8 first introduces mixing control shutter, however, claims 11-13 depend on previous claims. Correction required.

9. Claim 13 refers to **two portions** of **controlling mixing shutter**, however, fails to identify them in drawings. Correction required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 12 is indefinite because it is directed to figure 4 embodiment, yet it depends on claim 5 which is directed to figure 3 embodiment. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

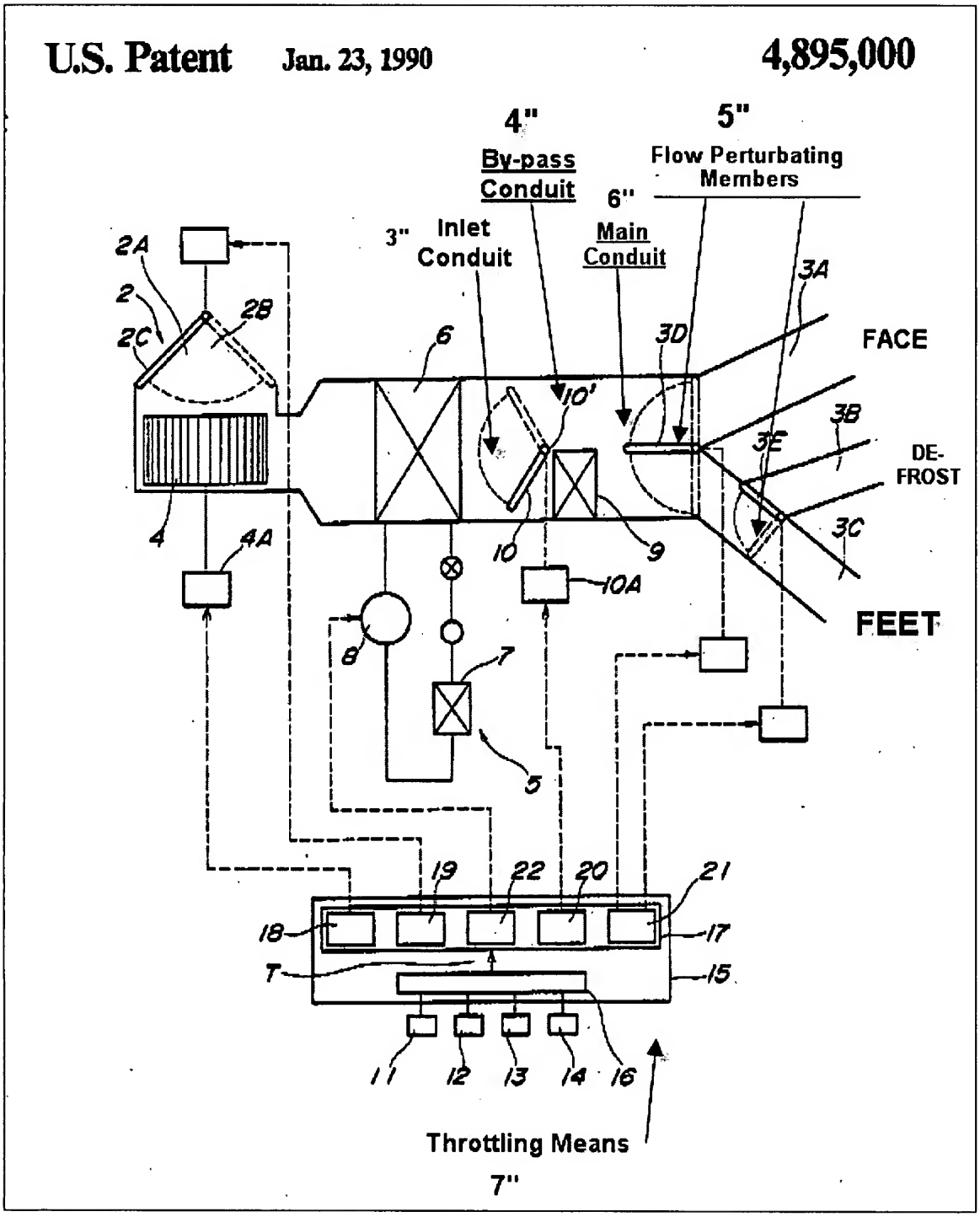
12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claim 1-3, 8, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi '4,895,000.

14. In re claim 1, Takahashi '000 discloses an air distributor device (figure 1) including: a structure defining a main conduit (6") and a plurality of outlet conduits (3A, 3B, 3C) communicating with the main conduit (6") and to be connected to a plurality of outlets for the outflow of air into the motor vehicle passenger compartment, Coanda effect distributor means mounted in the structure of the distributor device and movable to a plurality of operative positions each causing deviation, by the Coanda effect, of the air flowing through the main conduit (6") into a selected one of said outlet conduits (3A, 3B,

3C), characterized in that said distributor device further comprises: a radiating mass (9) positioned upstream of the main conduit (6") in such a way as to be traversed by the flow of air which arrives into the main conduit (6") from an inlet conduit (3") of the distributor device, to heat said flow of air, means which determine a variation of the temperature of the flow of air conveyed in said main conduit (6"), said means being controlled by said Coanda effect distributor means, in such a way that the temperature of the air flowing out of the distributor device is a function of the operative position (i.e. air-mixing damper (10)) of said Coanda effect distributor means. (See note 1 below)



Takahashi '4,895,000 Figure 1 Prior Art

Note 1

Coanda effect distributor means in prior art is simply identified as air-conditioning unit with the **Coanda Effect** taking place within it inherently as air flows along its smooth walls. Dampers have ability to 'throw' air to opposite wall of hinged side where air continues its "gripping" flow.

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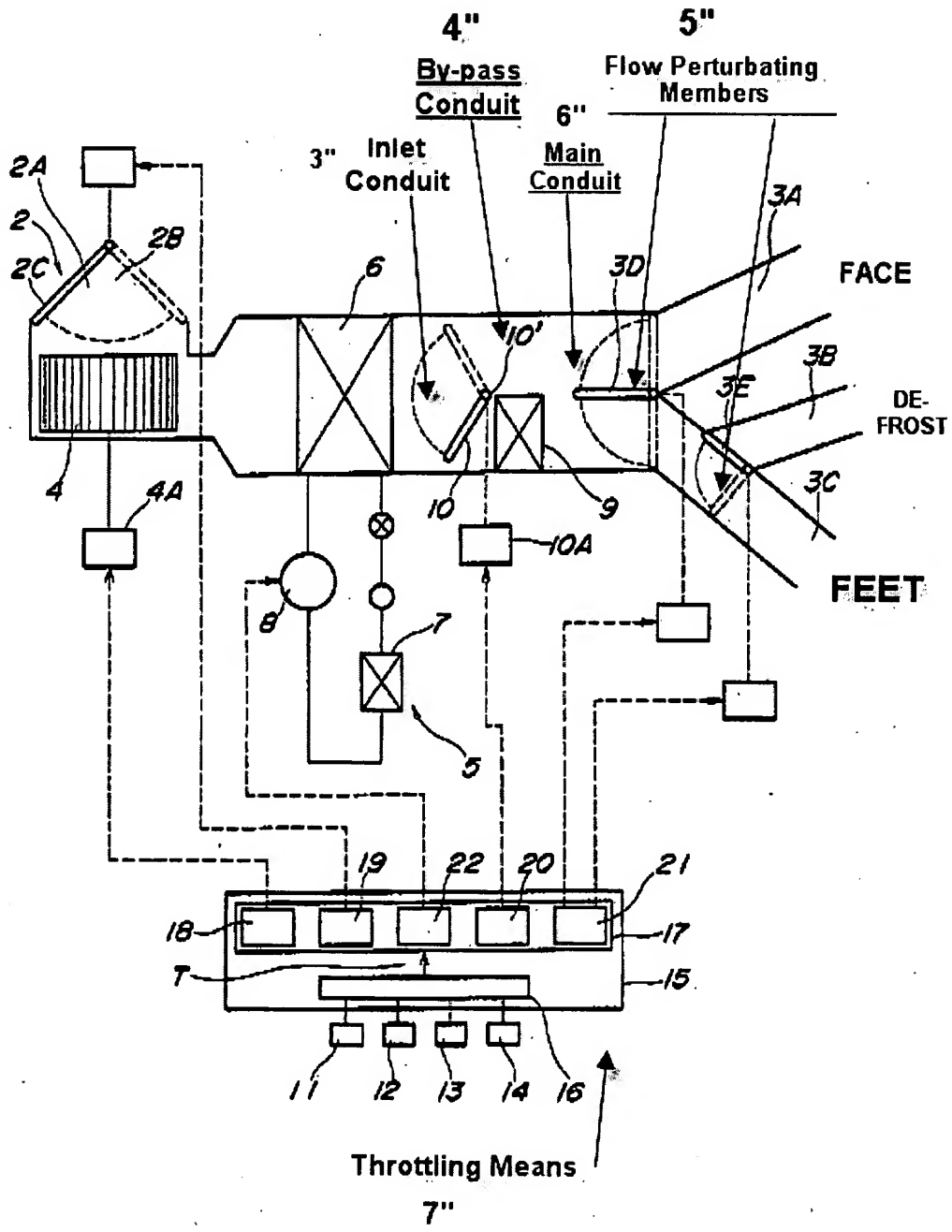
15. In re claim 2, Takahashi '000 discloses said distributor device (figure 1) further comprises a by-pass conduit (4") which connects the inlet conduit (3") to the main conduit (6") in parallel to the portion of conduit where the aforesaid radiating mass (9) is positioned, and means for throttling (7") obstructing the various distributor flow of the said by-pass said by-pass operative positions of the Coanda effect means which determine the deviation of the main conduit (6") into one of the aforesaid conduit (3A, 3B, 3C) for variably conduit depending upon outlet conduits (3A, 3B, 3C), in such a way that the temperature of the flow of air exiting the distributor device has different values depending on which outlet conduit (3A, 3B, 3C) has been selected through said Coanda effect distributor means . (See note 1 above)

16. In re claim 3, Takahashi '000 discloses invention above, and further discloses said Coanda effect distributor means comprise at least a flow perturbating member (5") having at least two different operative positions to cause the deviation, by Coanda effect, of the flow of air that travels through the main conduit (6") at least into a first (3A)

or into a second (3B, 3C) outlet conduit, and in that said throttling means (7") are constituted by a shutter (10) mechanically connected to said flow perturbating member (5"). (See note 1 above)

17. In re claim 8, Takahashi '000 discloses the distributor device further comprises a mixing controlling shutter (10) which controls an opening which places the inlet conduit (3") in communication directly with the main conduit (6"), in parallel with respect to the conduit portion in which the radiating mass (9) is positioned.

U.S. Patent Jan. 23, 1990 4,895,000



18. In re claim 10, Takahashi '000 discloses invention above and further discloses three outlet conduits (3A, 3B, 3C) respectively to be connected to outlets which direct the air adjacent to the floor of the motor vehicle passenger compartment, to outlets situated in the front part of the dashboard of the motor vehicle oriented towards the occupants of the motor vehicle, and to outlets situated at the base of the windshield of the motor vehicle, and in that the aforesaid throttling means (7") are shaped and positioned in such a way as to generate in the main conduit (6") a flow having a first, relatively lower, temperature, when the Coanda effect distributor means deviate the flow of air into the outlet conduit (3A) communicating with the front outlets (FACE), a flow of air at a second, relatively higher temperature when the Coanda effect distributor means send the flow of air from the main conduit (6") to the outlet conduit (3C) connected to the outlets adjacent to the floor of the motor vehicle (FEET) passenger compartment, and a flow of air having a third, still higher temperature, when the Coanda effect distributor means deviate the flow of air from the main conduit (3) to the third outlet conduit (3B) communicating with the outlets situated at the base of the windshield of the motor vehicle (DEFROST). See note 2 below.

Note 2

Heating core (3) is disposed directly in front of conduit which feeds front outlets (FACE) and windshield (DEFROST) outlets and with the proper opening angles of dampers (shutters) claim limitation regarding varying temperature across the three outlets (3A,

3B, 3C) can be achieved, especially being that the warmest temperatures are from the face and windshield outlets.

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19. In re claim 11, Takahashi '000 discloses invention above and further discloses it is provided with means for regulating the heating or cooling air including a mixing controlling shutter (10) which controls an opening that places the inlet conduit (3") of the distributor device directly in communication with the main conduit (6") in parallel to the portion of conduit in which the radiating mass (9) is positioned, characterised in that said mixing controlling shutter (10) is operatively connected to said Coanda effect distributor means, in such a way that to different operative positions of the Coanda effect distributors also correspond different operative positions of the mixing controlling shutter (10). See notes 1 and 2 above.

20. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kawai et al '6,138,749.

21. In re claim 1, Kawai et al '6,138,749 discloses an air distributor device (figure 2) including: a structure defining a main conduit (23A) and a plurality of outlet conduits (30, 33, 34) communicating with the main conduit (23A) and to be connected to a plurality of outlets for the outflow of air into the motor vehicle passenger compartment, Coanda effect distributor means mounted in the structure of the distributor device and movable to a plurality of operative positions each causing deviation, by the Coanda effect, of the

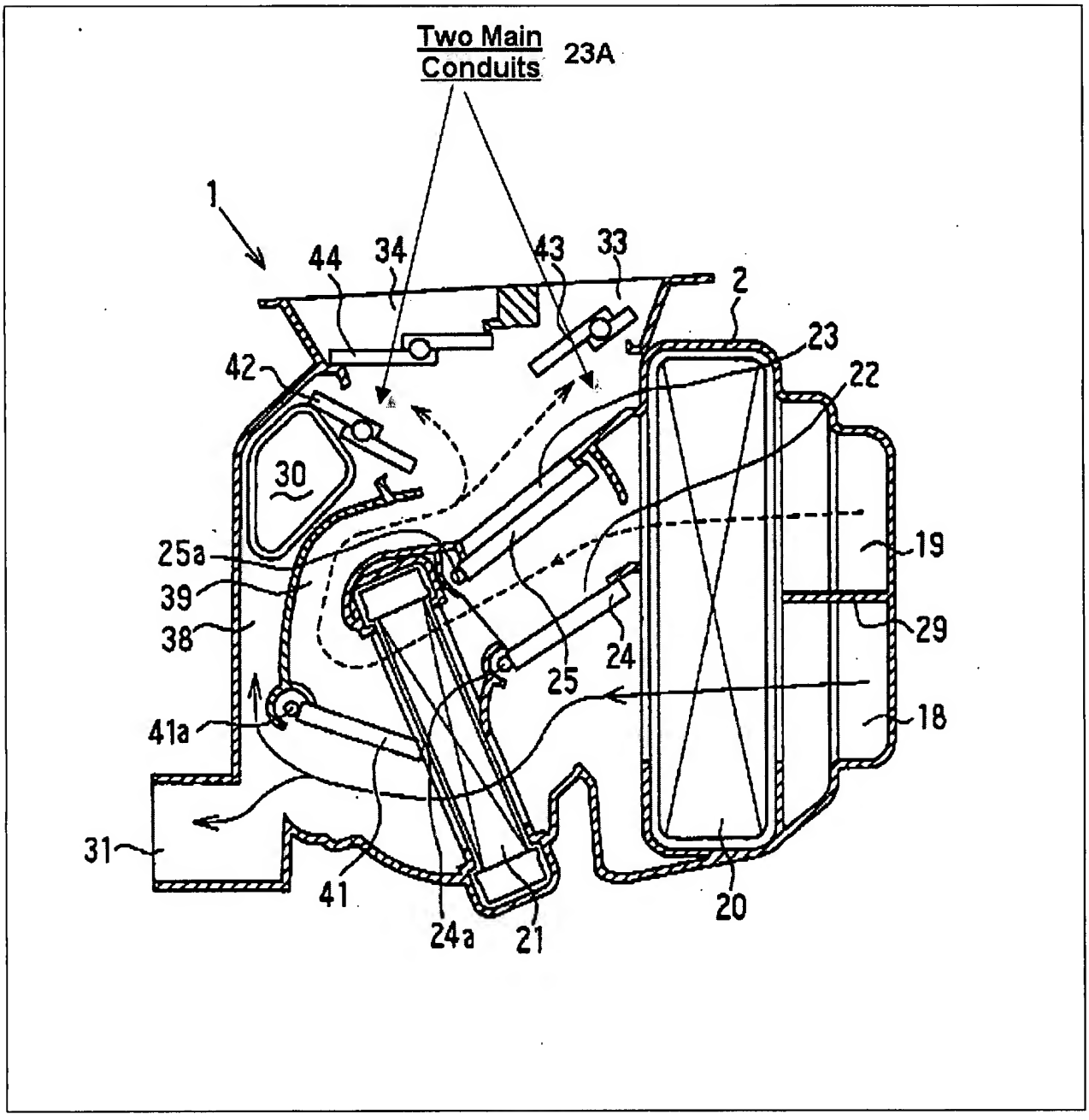
air flowing through the main conduit (23A) into a selected one of said outlet conduits (30, 33, 34), characterized in that said distributor device further comprises: a radiating mass (21) positioned upstream of the main conduit (23A) in such a way as to be traversed by the flow of air which arrives into the main conduit (23A) from an inlet conduit (18, 19) of the distributor device, to heat said flow of air, means which determine a variation of the temperature of the flow of air conveyed in said main conduit (23A), said means being controlled by said Coanda effect distributor means, in such a way that the temperature of the air flowing out of the distributor device is a function of the operative position (i.e. air-mixing damper (24, 25)) of said Coanda effect distributor means. (See note 1 above)

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

23. Claim 9 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai et al '6,138,749 in view of Kwon et al '6,036,594.'



Kawai et al '6,138,749 Figure 2

24. In re claim 9, Kawai et al '749 discloses invention above and further discloses an air distributor and mixer assembly comprising a plurality of main conduits (23A) set

mutually side by side and each communicating with a plurality of outlet conduits (30, 33, 34), each main conduit (23A) being provided with respective Coanda effect distributor means, with a respective by-pass conduit (22, 23) and with respective throttling means (24, 25). As best understood applicant is claiming two or more air distribution devices in unison. Kawai et al '749 does contain some redundancies reading into claim language, however does not claim to be a plurality of devices. Furthermore, patentable weight for the duplication of parts is not granted per MPEP citation below. Submission of amended drawing set and concise description of embodiment in specification will resolve all issues regarding claim structure.

MPEP 2144.04[R-1] VI B.

Duplication of Parts

In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) (Claims at issue were directed to a water-tight masonry structure wherein a water seal of flexible material fills the joints which form between adjacent pours of concrete. The claimed water seal has a web" which lies ** in the joint, and a plurality of "ribs" ** >projecting outwardly from each side of the web into one of the adjacent concrete slabs. <The prior art disclosed a flexible water stop for preventing passage of water between masses of concrete in the shape of a plus sign (+). Although the reference did not disclose a plurality of ribs, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.).

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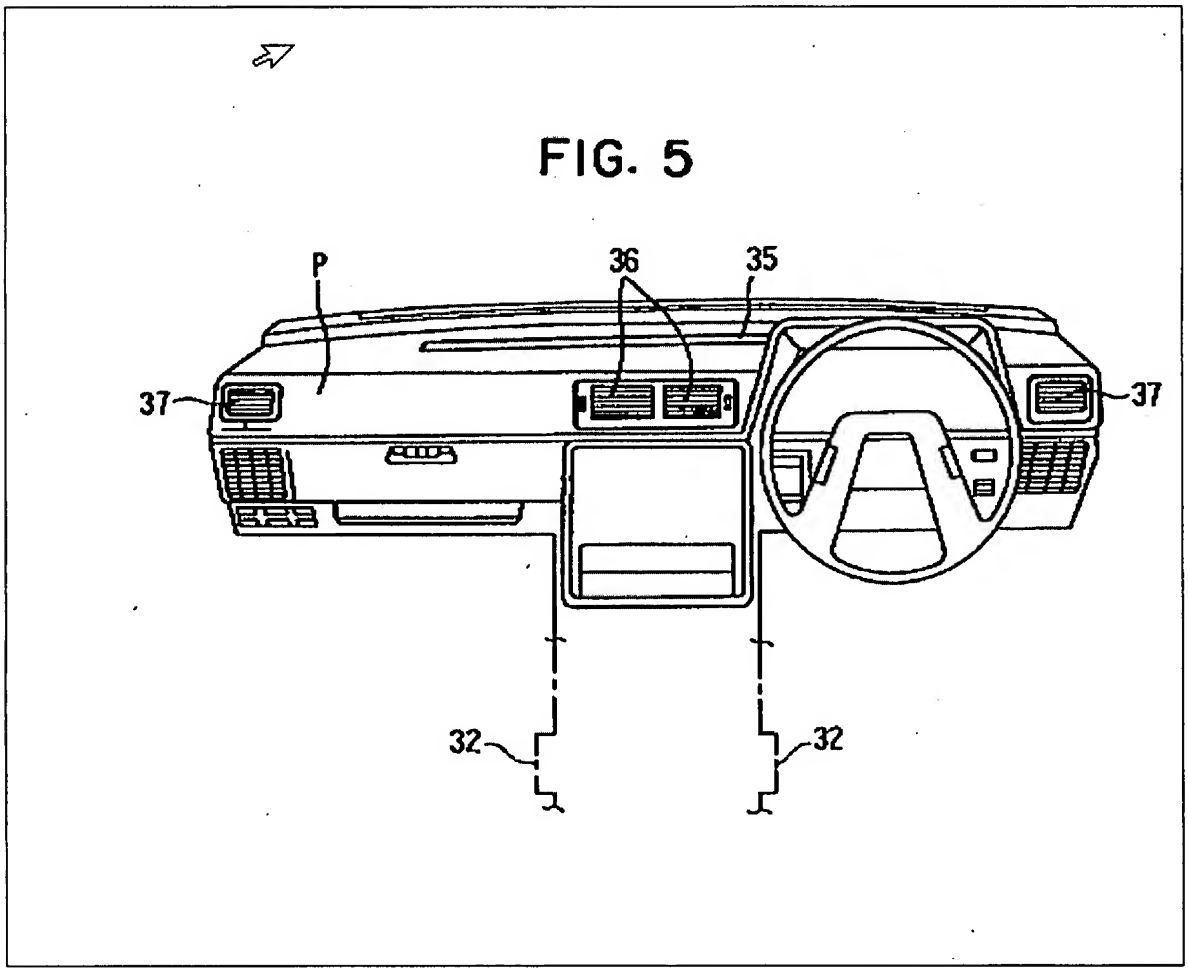
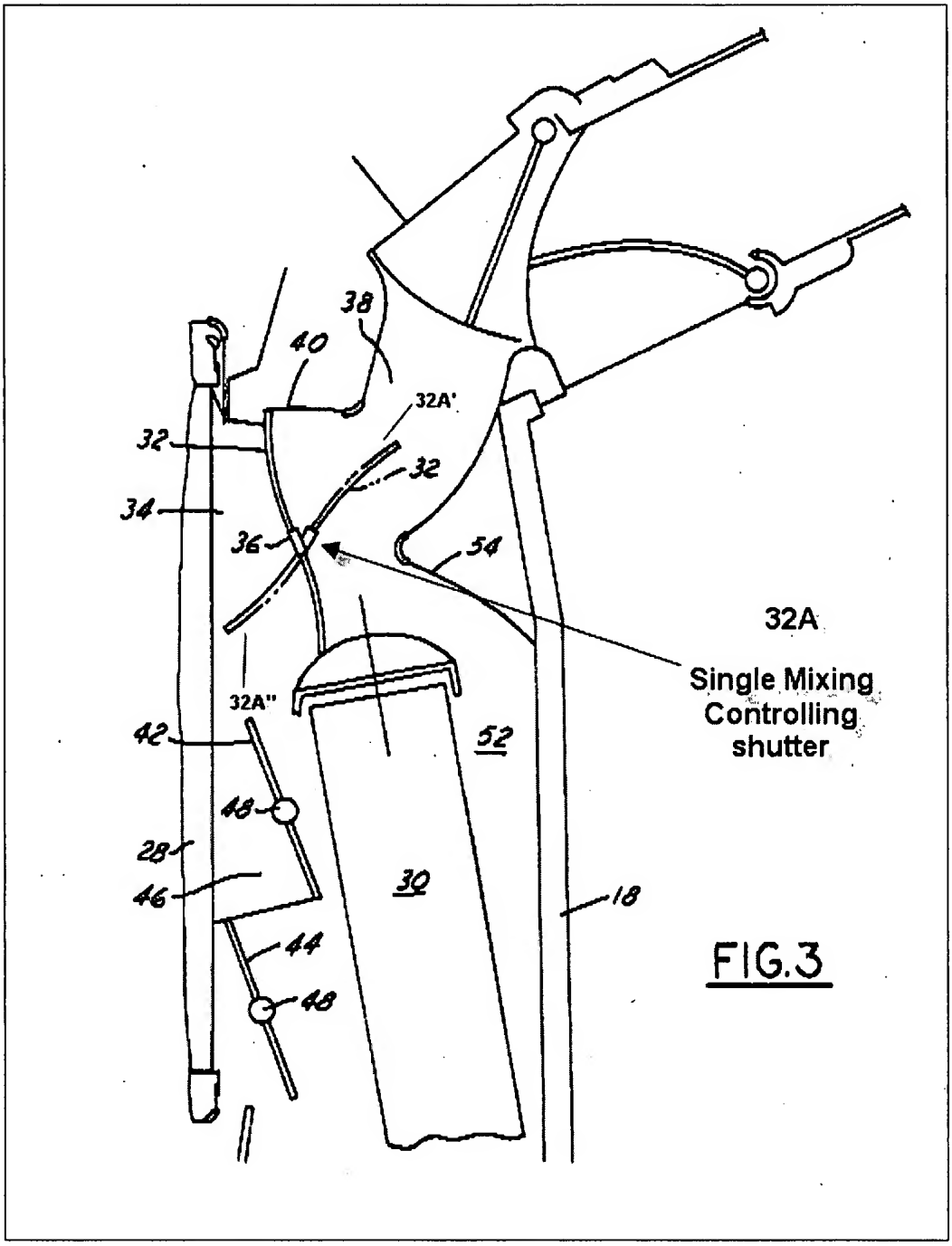
25. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Kawai et al '749 singular device with plurality of devices to increase the heating output of device where application required such.

26. In re claim 13, Kawai et al '749 discloses invention above and further discloses at least two main conduits (23A) set mutually side by side, communicating with respective sets of outlet conduits (30, 33, 34, figure 2) which in turn are connected to a series of outlets situated in the central (32, 35, 36, figure 5) part of the dashboard of the motor vehicle and to a series of outlets situated on a side (37, figure 5) of the dashboard of the motor vehicle.



Kawai et al '6,138,749 Figure 5

27. However, Kawai et al '749 fails to disclose that to the two aforesaid main conduits is associated a single mixing controlling shutter comprising two portions, angularly offset from each other and positioned in a single chamber for feeding air to the two main conduits, in such a way as to favor a greater flow of cold air towards the main conduit communicating with the central outlets than towards the main conduit communicating with the lateral outlets.



Kwon et al '6,036,594.' Figure 3

28. Nevertheless, Kwon et al '594 discloses that to the two aforesaid main conduits is associated a single mixing controlling shutter (32A) comprising two portions (32A', 32A"), angularly offset (see figure 3 above) from each other and positioned in a single chamber for feeding air to the two main conduits, in such a way as to favor a greater flow of cold air towards the main conduit communicating with the central outlets (Kawai et al '749, FIG. 5, 32, 35, 36,) than towards the main conduit communicating with the lateral outlets (Kawai et al '749 , FIG. 5, 37).

29. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Kawai et al '749 with Kwon et al '594 in teaching the incorporation of a single mixing controlling shutter with two portions angularly offset to help "bend" air flow in a direct fashion toward desired outlet.

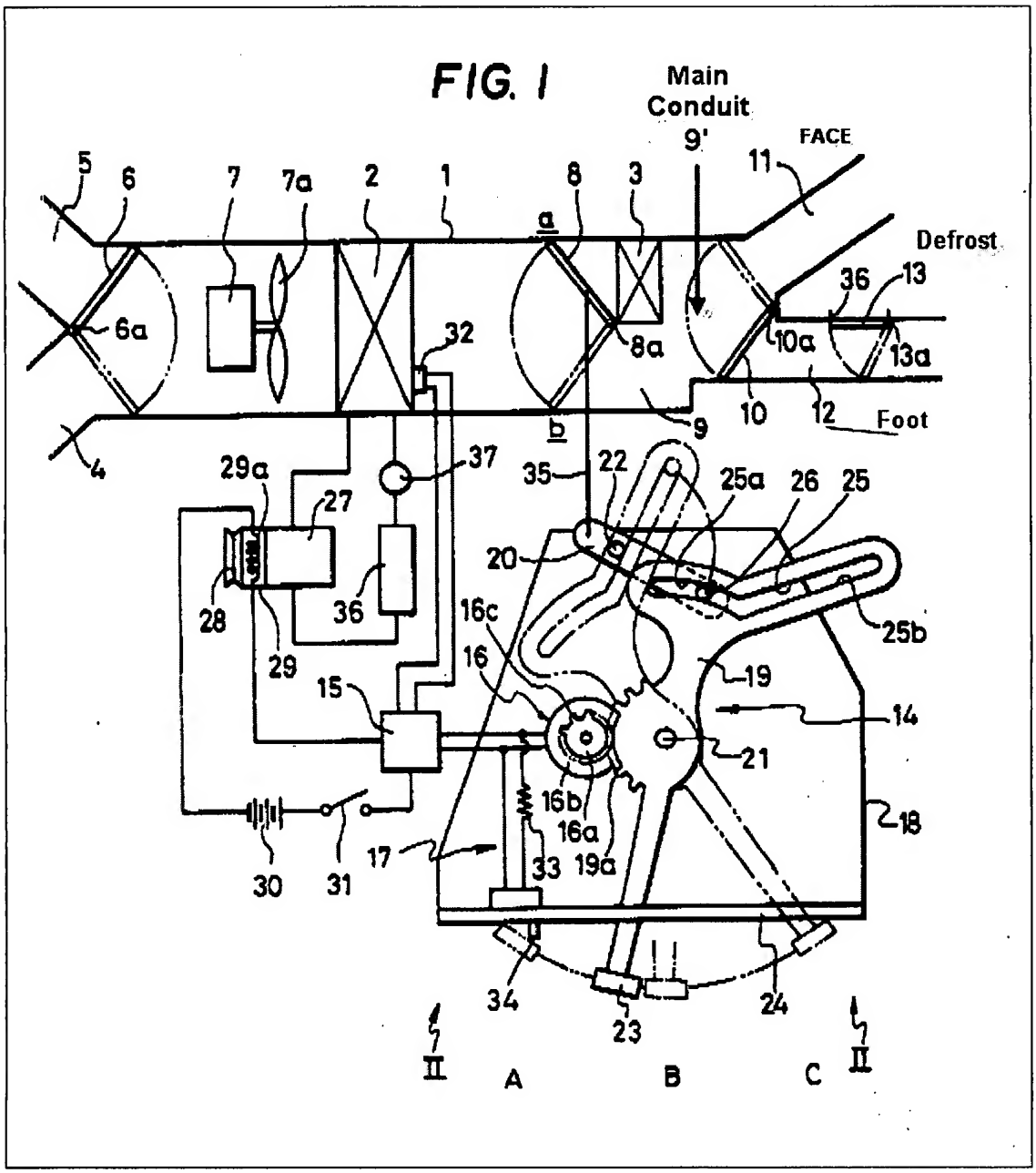


FIG. 1
Main Conduit
9'
FACE
Defrost
Foot
5
6
7
7a
2
1
a
8
3
11
6a
32
8a
36
13
10a
13a
10
12
9
b
4
29a
27
37
35
22
25a
26
25
20
28
36
16c
25b
29
16
19
15
14
21
16b
16a
18
17
33
19a
30
31
34
23
24
II
A
B
C
II

Allowable Subject Matter

30. Claim 4, 5, 6, 7 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **US4,895,000** discloses an air passage device for a motor vehicle that closely resembles invention herein especially the controlling functions. **US 5,259,815** discloses an outlet with aperiodic oscillation device that utilized coanda effect which is used in instant application. **US 4,354,547** features controls for an automobile air-conditioning system similar to invention herein. **US 4,227,569** discloses an air-conditioning installation with similar structure as invention herein. **US 6,036,594** discloses an air handling system for automobile vehicles similar to invention herein. **US 6688964** discloses a casing that encloses a plurality of ports and swinging and sliding doors to manage air flow in a motor vehicle

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph J. Corrigan whose telephone number is 571-270-3213. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph J Corrigan
Examiner
Art Unit 3744

FRANTZ JULES
SUPERVISORY PATENT EXAMINER